Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A therapeutic composition useful for treatment of oral mucositis as a side effect of cancer therapy, the composition comprising:

N-acetylcysteine in an amount effective as formulated in the composition to provide therapeutic effect for treatment of the mucositis;

from 5 weight percent to 20 weight percent poloxamer 407;

a carrier liquid comprising water in an amount sufficient as formulated in the composition to interact with the poloxamer 407 to impart reverse-thermal viscosity behavior to the therapeutic composition, wherein the composition exhibits the reverse-thermal viscosity behavior over at least some range of temperatures between 1°C and 37°C;

wherein, at some temperature in a range of from 2°C to 8°C the therapeutic composition is in the form of an aqueous solution with the poloxamer 407 and the N-acetylcysteine dissolved in the water.

2-14. (Cancelled).

15. (Previously Presented) The therapeutic composition of Claim 1, wherein the N-acetylcysteine comprises from about 0.001 percent by weight to about 50 percent by weight of the composition.

16. (Cancelled).

17. (Previously Presented) The therapeutic composition of Claim 1, wherein the therapeutic composition exhibits the reverse-thermal viscosity behavior over at least some range of temperatures between 1°C to 20°C.

18. (Cancelled).

19. (Previously Presented) The therapeutic composition of Claim 1, wherein the biocompatible polymer, as formulated in the therapeutic composition, imparts a reverse-thermal gelation property to the composition with the composition having a reverse-thermal liquid-gel transition temperature within a range of from 1°C to 37°C, so that the therapeutic composition gels as the temperature of the therapeutic composition is increased from below to above the reverse-thermal gel transition temperature.

20. (Previously Presented) The therapeutic composition of Claim 1, wherein the amount of the water, as formulated in the composition, does not interact with the poloxamer 407 to impart reverse-thermal gelation properties to the composition.

21. (Cancelled).

22. (Cancelled).

23. (Cancelled).

24. (Currently Amended) The therapeutic composition of Claim 1, wherein the poloxamer 407 is dissolved in the water ~~carrier liquid~~ when the composition is at a temperature of 5°C.

25. (Currently Amended) The therapeutic composition of Claim 24, wherein the N-acetylcysteine is dissolved in the water ~~carrier liquid~~ when the composition is at a temperature of 5°C.

26-30. (Cancelled).

31. (Previously Presented) The therapeutic composition of Claim 1, comprising a bioadhesive agent that is different than the N-acetylcysteine and the poloxamer 407.

32-34. (Cancelled).

35. (Original) The therapeutic composition of Claim 1, comprising at least one taste masking component.

36-37. (Cancelled).

38. (Original) The therapeutic composition of Claim 1, comprising at least one preservative component.

39-132. (Cancelled).

133. (Previously Presented) The therapeutic composition of Claim 1, wherein the therapeutic composition exhibits an increase in viscosity from no larger than about 60cP to at least about 70cP when a temperature of the composition is increased from 1°C to 37°C.

134. (Previously Presented) The therapeutic composition of Claim 1, wherein the therapeutic composition exhibits an increase in viscosity from no larger than about 60cP to at least about 80cP when a temperature of the composition is increased from 1°C to 37°C.

135. (Previously Presented) The therapeutic composition of Claim 1, wherein the therapeutic composition exhibits an increase in viscosity from no larger than about 50cP to at least about 70cP when a temperature of the composition is increased from 1°C to 37°C.

136. (Previously Presented) The therapeutic composition of Claim 1, wherein the composition comprises reverse-thermal gelation properties with a reverse-thermal liquid-gel transition temperature within the range of temperatures.

137. (Currently Amended) The therapeutic composition of Claim 1, wherein the therapeutic composition comprises from 0.1 to 20 weight percent of the N-acetylcysteine ~~and from 5 to 20 weight percent of the poloxamer 407~~.

138-139. (Cancelled).

140. (Previously Presented) The method of Claim 137, wherein the therapeutic composition comprises about 10 weight percent of the N-acetylcysteine.

141. (Cancelled).

142. (Currently Amended) The therapeutic composition of Claim 1, wherein:

the therapeutic composition is adapted for delivery to a patient when the therapeutic composition is at a refrigerated temperature in a range of from 1°C to 10°C; and

when the therapeutic composition is at the refrigerated temperature, it is in the form of a flowable medium with each of the N-acetylcysteine and the poloxamer 407 dissolved in the water ~~carrier liquid~~.

143. (Previously Presented) The therapeutic composition of Claim 142, comprising from 0.1 weight percent to 25 weight percent of the N-acetylcysteine.

144. (Cancelled).

145. (Previously Presented) The therapeutic composition of Claim 143, comprising from 10 weight percent to 20 weight percent of the poloxamer 407.

146. (Previously Presented) The therapeutic composition of Claim 143, comprising up to 10 weight percent of the N-acetylcysteine.

147. (Previously Presented) The therapeutic composition of Claim 143, comprising about 10 weight percent of the N-acetylcysteine.

148. (Previously Presented) The therapeutic composition of Claim 147, comprising from 10 weight percent to 20 weight percent of the poloxamer 407.

149. (New) The therapeutic composition of Claim 143, wherein when the therapeutic composition is at a temperature of 2°C the therapeutic composition has sufficient fluidity for use as a mouthwash that can be swished in the oral cavity.

150. (New) The therapeutic composition of Claim 143, wherein when the therapeutic composition is at a temperature of 2°C the viscosity of the therapeutic composition is no larger than 60 cP.

151. (New) The therapeutic composition of Claim 143, wherein the carrier liquid is water.

152. (New) The therapeutic composition of Claim 143, wherein the carrier liquid comprises, in addition to the water, at least one component selected from the group consisting of ethanol and a polyol.